KINDER/MORGAN

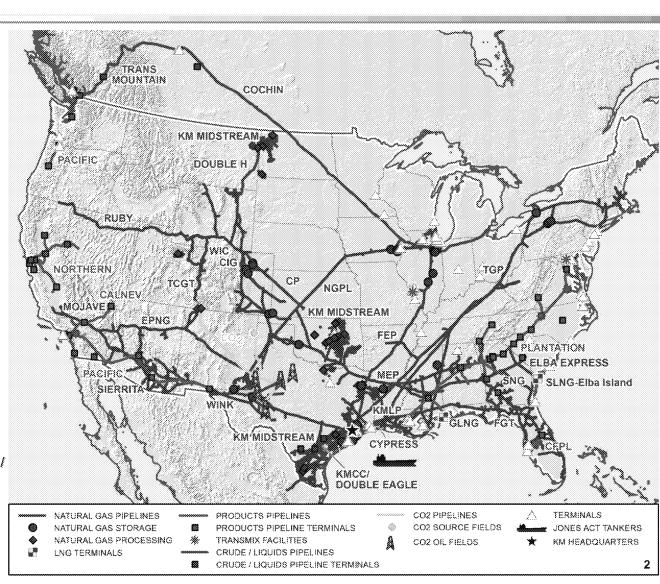
December 7, 2017
Meeting with EPA Administrator

Unparalleled Asset Footprint



One of the Largest Energy Infrastructure Companies in North America

- Largest natural gas transmission network in North America
 - Own or operate ~70,000 miles of natural gas pipeline
 - Connected to every important natural gas resource play in the U.S.
- Largest independent transporter of petroleum products in North America
 - Transport ~2.1 MMBbl/d
- Largest transporter of CO₂ in North America
 - Transport ~1.3 Bcf/d of CO₂
- Largest independent terminal operator in North America
 - Own or operate ~155 terminals
 - ~152 MMBbls liquids capacity
 - Handle ~53 MMtons of dry bulk products
 - Own 16 Jones Act vessels
- Only Oilsands pipeline serving the West Coast
 - Transports ~300 MBbl/d to Vancouver / Washington State; planned expansion takes capacity to 890 MBbl/d





U.S. EPA – Oil & Gas Emission Standards

KM Supports and Plans to Comment on the Notice of Data Availability

Delay of Repair

- Requiring repairs and replacement of leaking components after unscheduled and emergency vent blowdowns and compressor station shutdowns is not feasible in many cases for safe and reliable pipeline operations
- KM supports the proposed language developed by INGAA and GPA Midstream

LDAR requirement should be Annual for Compressor Stations

- Consistent with GHGRP Subpart W requirements
- KM data indicates benefits of LDAR do not increase with increased frequency of inspection

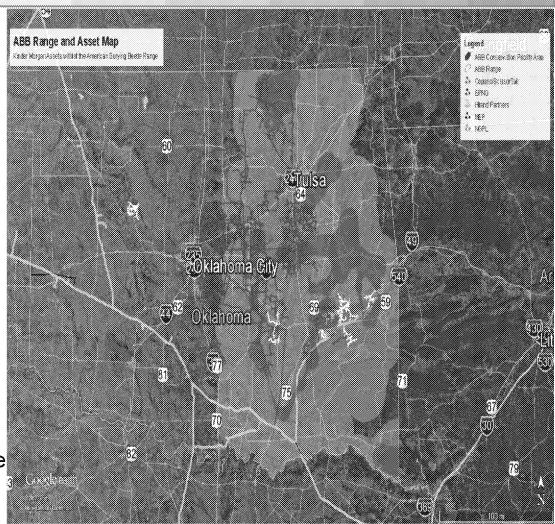


American Burying Beetle

Endangered Species Act, US Fish & Wildlife

Impact to current process

- Environmental issue
- Holding up midstream and upstream projects
- Agency coordination
- Pending delisting petition status
 - Lawsuit pending
- Permitting Process
- Habitat Management Plan
 - Overly broad
 - Buying credits is only way to comply
 - Lengthy, costly process
- Requested Policy Changes
 - Delist or put specific guidance out for staff





Coordinating Issues for Infrastructure Projects

- EPA should participate in NEPA process reflecting National Policy.
 - National Policy is to support energy infrastructure to increase production of fossil fuels.
 - EPA should be a constructive participant as a cooperating agency in scoping; commenting internally on non-public drafts and then filing supporting comments of the draft and final NEPA documents recognizing a pro-growth national policy.
- EPA should insist that states with delegated EPA statutory authority implement that authority consistent with the National Policy of supporting energy infrastructure and development of fossil fuels.
 - EPA should enforce clear deadlines to issue requested permits under the Clear Air Act, the Clean Water Act and other statutory or regulatory programs.



Superfund/CERCLA -Sediment Cleanup

Lower Passaic and Portland Harbor sites

Interpretation and Implementation Issues

- EPA not following detailed Sediment Guidance consistently at "mega" sediment sites.
 - Sediment Guidance includes: "Principles of Managing Contaminated Sediment Risks at Hazardous Waste Sites", EPA Feb. 12, 2002; and Office of Land and Emergency Management (OLEM) Directive 9200.1-130, Jan. 9, 2017;
- EPA has not applied Adaptive Management principles in remedy selection process.
 - Included in Sediment Guidance and intended to be used at complex sediment sites.
 - Application would result in reduction in RI/FS process scope and length, acceleration of remedy selection and implementation, and performance monitoring.
 - Massive and intrusive dredging remedies cannot be the standard remedy.
 - Source control and background contamination must be addressed as critical to remedy selection.
- EPA does not apply CERCLA, the NCP and Agency Guidance uniformly across all regions.
 - CERCLA/NCP require remedies be "cost effective" = cost of remedy proportional to its effectiveness.
 - Enforce the recommendations of the EPA Superfund Task Force (July 2017)
- Only use CERCLA for the protection of human, health and environment.
 - Example Requiring navigational dredging as part of remedy for Lower Passaic (estimated to be 30% of the ROD implementation costs).
- Potentially Responsible Party (PRP) Matters
 - Must consistently use EPA mechanisms for ID of all PRPs, orphan share funding, enforcement of recalcitrant PRPs, and ending special settlements with government, municipal or quasi-government.
 - Elevate decisions in dispute resolution to AA of OLEM from Region's Superfund Director.



Detailed Backup and Additional Issues



U.S. EPA – Oil & Gas Emission Standards

NSPS 0000a Technical Concerns

Delay of Repair: INGAA/GPA Midstream Proposed Language fix

§ 60.5397a(h)(2) If the repair or replacement is technically infeasible, would require a vent blowdown, a compressor station shutdown, a well shutdown or well shut-in, or would be unsafe to repair during operation of the unit, the repair or replacement must be completed during the next <u>scheduled</u> compressor station shutdown <u>for maintenance</u>, well shutdown, well shut-in, <u>after an unscheduled</u>, <u>planned or emergency vent blowdown</u> or within 2 years, <u>whichever is earlier</u>.

Delay of repair will be allowed beyond the next scheduled compressor station shutdown for maintenance if (a) replacement parts cannot be acquired before the next scheduled shutdown for maintenance or (b) the delay is attributable to other good cause that makes a sooner repair impracticable and/or would lead to excess emissions. The operator must document: the location and nature of the leak, the date the leak was added to the delay of repair list, the basis for delaying the repair, the date replacement parts were ordered, the vendor providing the parts, and the anticipated delivery date. Replacement parts must be promptly ordered after determining it is necessary to delay the repair and the repair must be completed within 30 business days of receipt of the replacement parts, during the next scheduled maintenance shutdown after the parts are received if the repair requires a shutdown, or within 30 business days after the cause of delay ceases to exist.

Duplicative of GHGRP Subpart W Requirements

- OOOOa and GHGRP Subpart W requirements are duplicative and EPA further complicated Subpart W reporting for OOOOa sources.
- KM requests OOOOa and GHGRP data collection and reporting be streamlined. Specifically, if a source reports under OOOOa, then forego reporting GHGRP data into EGGRT.



U.S. EPA - Oil & Gas Emission Standards

NSPS 0000a Technical Concerns

Modification to a Compressor Station Definition

Causes confusion when work is done on compressors. Compressors do not have horsepower ratings § 60.5365a(j) The collection of fugitive emissions components at a compressor station, as defined in § 60.5430a, is an affected facility. For purposes of § 60.5397a, a "modification" to a compressor station occurs when:

- (1) An additional compressor is installed at a compressor station; or (2) One or more compressors at a compressor station is replaced by one or more compressors of greater total horsepower than the compressor(s) being replaced. When one or more compressors is replaced by one or more compressors of an equal or smaller total horsepower than the compressor(s) being replaced, installation of the replacement compressor(s) does not trigger a modification of the compressor station for purposes of § 60.5397a.
- If EPA retains a similar modification definition, clarify the intent

Other technical issues – Examples include:

Leak Thresholds

Final rule allows for Method 21 @ 500 ppm as a threshold Cubic Feet/minute leak rate would preferred; threshold should be based on latest research

Third Party Ancillary Equipment: LDAR scope should be limited to the collection of fugitive emission components at well sites or compressor stations which are owned, operated, or leased by the producer or compressor station owner/operator.

Conflicting resurvey timeframe requirements in § 60.5397a(h)3 and § 60.5397a(h)3i:

Suggested language:

§ 60.5397a(h)3 Each repaired or replaced fugitive emissions component must be resurveyed as soon as practicable, but no later than 30 days after being repaired, to ensure that there are no fugitive emissions.

(i) For repairs that cannot be made during the monitoring survey when the fugitive emissions are initially found, the operator may resurvey the repaired fugitive emissions components using either Method 21 or optical gas imaging within 30 days of finding such fugitive emissions



National Ambient Air Quality Standards (NAAQS)

AERMOD and One-Hour NAAQS Issues (NO2, SO2)

- The current model is not capable of demonstrating compliance with 1 hr standard. The model over predicts for low stacks.
- EPA should issue a guidance to states and regulated community to not require one-hour modeling until the model is fixed.
- Support existing coordination between Pipeline Research Council International (PRCI), INGAA and EPA presenting fixes to EPA.

NAAQS Reform presented in 10/25/2017 response to EO 13783

- KM supports EPA reform efforts on NAAQS.
- Concerns with the timing of implementations of NAAQS within the required 5 year review period. Within 5 year review period, often technology does not exist to comply with lower standard.
- The frequency of NAAQS revisions result in overlapping requirements to be implemented in a short time frame, resulting in uncertainty for planned and permitted facilities.
- Frequent revisions of standards result in a backlog of SIPs to be reviewed and delays SIP approval by EPA.

https://www.epa.gov/sites/production/files/2017-10/documents/eo-13783-final-report-10-25-2017.pdf



EPA Regulations should Adhere to Plain Writing Act

- Plain Writing Act of 2010 Requires clear government communication that the public can understand and use
- E.O. 13563 states [our regulatory system] must ensure that regulations are accessible, consistent, written in plain language, and easy to understand
- EPA should apply plain language requirements to air quality regulations for guidance

KM takes compliance very seriously

- When regulations are written in an overly complicated fashion, operators are vulnerable to enforcement due to interpretation nuances even when they are committed to doing the right thing
- Making regulations difficult to understand is counterproductive

Examples where EPA has not adhered to this law

- 40 CFR Part 63 Subpart ZZZZ compliance requirements for reciprocating engines differ dependent on specific makes/models/dates of engines
- EPA and operators have had to develop several documents to guide compliance. The guidance itself is difficult to follow
- * KM recommends streamlining rules to the extent possible, especially in cases where the complexity outweighs any environmental benefit



Start up, Shut down and Malfunction emissions

- EPA should withdraw the startup, shutdown, malfunction (SSM)
 SIP Call.
 - EPA should revisit actions taken in response to a 2008 Court decision and broadly implement work practice standards for SSM events.
 - The SIP Call was not based on a finding of air quality impacts or that the removal of the SSM exemption would enable meeting air quality standards.
- EPA should develop regulations that broadly implement work practices during SSM events for NSPS and NESHAPs for combustion sources.
 - EPA should document the emission standard compliance limitations associated with the original rulemaking for NSPS and NESHAPs.
 - If EPA does not establish work practices during SSM, then amend the regulations to define emission standards that can be achieved during an SSM event.
- Proposed amendments to Start up, Shut Down and Malfunction were moved to the inactive regulatory agenda July 20, 2017.
 - Longer than 12 months for regulatory action.



EPA's Once in always in policy

- Remove the 1995 Once in always in policy
 - EPA proposed to codify an alternative approach in January 2007, but did not issue a final rule. The 1995 memo should be withdrawn and replaced with a new policy that allows a major source to become an area source at any time.
 - EPA should revisit codifying an alternative to the 1995 memorandum which discourages owners and operators from reducing HAP emissions from existing sources because a major HAP source retains major source status even if emissions are decreased below major source thresholds.
 - The opportunity to become a minor source provides owners and operators the ability to reduce regulatory burdens and incentivizes companies to reduce HAP emissions.
- Proposed amendments to the General Provisions to the NESHAP to replace the 1995 Once in Always In Policy were moved to the inactive regulatory agenda July 20, 2017.
 - Longer than 12 months for regulatory action.



American Burying Beetle

Problem Statement and Recommendations

- Project permitting requires an Incidental Take Permit (ITP) through the Oil and Gas Industry Conservation Plan (ICP)
- The ICP requires Individual Project Packages containing:
 - Species Assessment and Mitigation Calculations;
 - ABB Survey Information;
 - IPaC Results;
 - Maps and Description of Area of IPP Approval;
 - ICP Implementation Funding; and
 - Mitigation Funding.
- Mitigation funding can add \$16.35 per linear foot to a pipeline project
- Permit processing takes 45-60 days

Requested Policy Changes if no Delisting

- USFWS respond within 2 weeks to the permittee providing the name and contact information of the permit manager
- USFWS act within 30 days to request additional information
- USFWS adhere to a 30-day deadline for final permit action (to run concurrently with the 30-day timeline for information request if no information is requested), similar to how the USACE operates under the Nationwide Permit program



American Burying Beetle

Litigation Timeline

- July 1989: Listed as endangered species by the USFWS
 - September 1991: Recovery Plan published by USFWS
 - Delisting criteria absent, contributing to current delisting problem
- August 2015: American Stewards of Liberty (ASL), the Independent Petroleum Association of America (IPAA), and the Texas Public Policy Foundation (TPPF) file Delisting Petition
- March 2016: USFWS determines delisting may be warranted, state they will include findings in their 12-month review, due August 2016
- August 2016: USFWS fails to publish any findings
- September 2017: ASL, IPAA, and TPPF sues the USFWS for violation of section 4(b)(3)(B) of the Endangered Species Act (ESA) based on USFWS' failure to render a timely 12-month finding



Superfund/CERCLA -Sediment Cleanup

Lower Passaic and Portland Harbor sites

Kinder Morgan endorses the recommendations made in the referenced documents:

- Recommendations of the Lower Passaic River Study Area Cooperating Parties Group to the Superfund Task Force June 13, 2017.
- Testimony of Steven C. Nadeau Partner, Environmental Practice Group Honigman Miller Schwartz and Cohn LLP Hearing on "Oversight of CERCLA Implementation" Before the House of Representatives Committee on Energy and Commerce, Subcommittee on Environment and the Economy July 13, 2016 http://docs.house.gov/meetings/IF/IF18/20160713/105195/HHRG-114-IF18-Wstate-NadeauS-20160713.pdf